

REMARKS

In the Office Action dated August 26, 2004, claims 71-73, 82, 83, 2-5, 7-9, 62-65, 74, and 75 were rejected under 35 U.S.C. § 103 over U.S. Patent No. 5,172,717 (Boyle) in view of U.S. Patent No. 6,500,262 (Bednarz); and claims 71-73, 82, 83, 2-5, 7-9, 62-65, 74, and 75 were rejected under § 103 over U.S. Patent No. 6,012,015 (Tubel) in view of Bednarz.

Withdrawn claims 29-33, 35-41, 66-70, and 78-80 have been cancelled, without prejudice to filing such claims in divisional applications.

To establish a *prima facie* case of obviousness, at least two requirements must be satisfied: (1) there must be some motivation or suggestion to combine the reference teachings; and (2) the references when combined must teach or suggest all elements of the claimed subject matter. M.P.E.P. § 2143 (8th ed., Rev. 2), at 2100-129. Here, neither requirement has been satisfied in the obviousness rejections.

The Office Action asserted that Boyle “discloses the invention substantially as claimed (see col. 3 line 54+).” 8/26/2004 Office Action at 2. The only thing asserted by the Office Action as missing from Boyle is the recited “portable user interface device.” *Id.* Applicant respectfully submits that Boyle also fails to disclose a control module adapted to use an output of a current detector to determine for presence of components in a tool, as recited in claim 71. The Office Action pointed to column 3, line 54+, as teaching this particular feature of the claim. The cited passage of Boyle describes a surface controller 30 (see Fig. 2 of Boyle) that is able to receive, over a control line 47, data from downhole electronic packages 52, 72. The control line 47 can be used to provide information related to the operation of the gas lift valve and information from the pressure transducer 46 to the controller 30. Boyle, 7:45-65. However, there is absolutely no indication whatsoever in Boyle that its surface controller 30 is able to use the output of a current detector to determine for presence of components in the tool. According to Boyle, the surface controller must already be aware of the presence of the downhole components, because the surface controller must provide a unique address code for address control switches of the downhole sensors. Boyle, 5:4-17. Because the unique address code is already assigned to the downhole sensors, the surface controller is already aware of the presence of the downhole sensors. Therefore, the surface controller does not use an output of any current detector to determine for presence of components in the tool.

In view of the incorrect assertion in the Office Action that Boyle teaches an element of claim 71, it is respectfully submitted that the hypothetical combination of Boyle and Bednarz does not teach or suggest all the elements of claim 71. A *prima facie* case of obviousness has thus not been established for at least this reason.

Moreover, there simply did not exist any motivation or suggestion to combine the teachings of Boyle and Bednarz. Boyle teaches the use of a surface controller to communicate with downhole electronic packages over a control line. On the other hand, Bednarz teaches a remote control device to select, change, modify, and otherwise control a variety of parameters and functions of a paint spraying operation. Bednarz, 2:26-32. The remote control device of Bednarz enables an operator to be stationed at, or near, a spray booth so as to be able to observe the actual spraying operation and to transmit instructions to a control console. Bednarz, 2:32-35. There is absolutely no indication or suggestion whatsoever within Bednarz that its remote control device can be modified for use with a surface controller for use in a well environment. Similarly, there is no suggestion anywhere within Boyle of any desirability to use a portable user interface device to control the surface controller. In fact, as depicted in Fig. 1 of Boyle, the surface computer 25 is connected by a wire to the surface controller 30. Thus, a person of ordinary skill in the art looking to the teachings of Boyle would have been motivated to electrically connect the computer 25 by wire to the surface controller 30. The same person of ordinary skill in the art looking to the teachings of Bednarz would have been motivated to use a remote control device for controlling a spray painting system. There is absolutely no suggestion anywhere of combining the two teachings to achieve the claimed invention. For this additional reason, a *prima facie* case of obviousness has not been established with respect to claim 71.

Claims dependent from claims 71 are allowable for at least the same reasons. Moreover, with respect to dependent claim 72, neither Boyle nor Bednarz teaches or suggests the use of the output of a current detector to determine if a component of the tool *has failed*. With respect to claim 84, there is no teaching or suggestion whatsoever by either Boyle or Bednarz of a control module to communicate operational status of each of the components of the tool to the portable user interface device. With respect to claim 85, which depend from claim 84, there is no teaching or suggestion by either Boyle or Bednarz of the portable user interface device having a graphical user interface to display the operational status of each of the components in the tool.

Independent claim 73 is also allowable over the assert combination of Boyle and Bednarz. Claim 73 recites a current detector to detect current from a tool, where the control module is adapted to use an output of the current detector to determine if a component in the tool has failed. There is absolutely no indication whatsoever in Boyle, contrary to the assertion in the Office Action, that its surface controller is able to use the output of a current detector to determine if a component in a tool has failed. All Boyle performs is receiving parameters from sensors downhole as well as to receive information related to the operation of a gas lift valve. No teaching is provided by Boyle that any such information is used to indicate that the component has failed, or that a current detector is used to determine if such a component has failed.

Therefore, because the hypothetical combination of Boyle and Bednarz does not teach or suggest all elements of claim 73, it is respectfully submitted that a *prima facie* case of obviousness has not been established with respect to claim 73 over Boyle and Bednarz.

Moreover, as discussed above, there simply did not exist any motivation or suggestion to combine the teachings of Boyle and Bednarz to achieve the claimed invention. The *prima facie* case of obviousness fails on this further ground.

Claims dependent from claim 73 are allowable for at least the same reasons as corresponding independent claims. Also, claim 75, which depends indirectly from claim 73, recites that the portable user interface device is able to verify addresses of components in the tool. There is no such teaching in either Boyle or Bednarz of the portable user interface device verifying addresses of components in a tool. Boyle teaches that its surface controller can send address codes to select address control switches – however, there is no verification of addresses of the components being performed by the surface controller or by the computer 25 of Boyle. Claims 86 and 87, which depend from claim 73 and 86, respectively, are allowable over Boyle and Bednarz for reasons similar to those of claims 84 and 85.

With respect to independent claim 82, neither Boyle nor Bednarz teaches or suggests a control module to send a command to a tool to perform a test of the tool, where the control module is responsive to wireless signals from the portable user interface device to send coded signals to the tool for testing the tool. There is no indication whatsoever in Boyle of testing a tool or sending coded signals to the tool for testing the tool. Neither is there such a teaching in

Bednarz. Therefore, the asserted combination of Boyle and Bednarz does not teach or suggest the claimed invention. Also, as noted above, there existed no motivation or suggestion to combine the teachings of Boyle and Bednarz to achieve the claimed invention.

Claims dependent from claim 82 are allowable for at least the same reasons. Moreover, with respect to claim 7, there is no teaching in either Boyle or Bednarz of a portable user interface device that has a display to show a result of the test of the recited tool. With respect to dependent claim 62, which depends from claim 82, there is no teaching in either Boyle or Bednarz of the graphical user interface having one or more control elements selectable to activate testing of the tool. With respect to claim 63, which depends from claim 62, there is no teaching in either Boyle or Bednarz of a portable user interface device that is able to send commands for sequentially testing plural control units of the tool.

Independent claim 83 is also allowable over Boyle and Bednarz, as the hypothetical combination of Boyle and Bednarz does not teach or suggest a control module to send a command to a tool to perform a test of a tool, or of the control module responsive to wireless signals from the portable user interface device to send coded signals to the tool for testing the tool. Also, there is no teaching or suggestion anywhere in the cited references of a detector to detect for at least one of the following failures: mis-wiring of components in the tool, a short in the tool, and the presence of a detonator in the tool. Therefore, the hypothetical combination of Boyle and Bednarz does not teach or suggest all elements of the claim.

Moreover, there existed no motivation or suggestion to combine the teachings of Boyle and Bednarz to achieve the claimed invention. Therefore, a *prima facie* case of obviousness has not been established with respect to claim 83.

The obviousness rejection of the claims over the asserted combination of Tubel and Bednarz is similarly defective, as no motivation or suggestion existed to combine the teachings of Tubel and Bednarz, and further, the hypothetical combination of Tubel and Bednarz fails to teach or suggest all elements of the claimed invention.

Tubel teaches the use of downhole control systems 22 in different zones of a downhole environment. The downhole control system 22 can communicate with downhole sensors, and with surface nodes. The downhole control system 22 is able to record downhole data acquired by the sensors. Tubel, 9:6-10. There is no indication that the control system 22 includes a

current detector to detect current from a tool, with the output of the current detector used for determining for presence of components in the tool, as recited in claim 71. Also, there is no indication whatsoever that Tubel is able to use the output of a current detector to determine if a component in the tool has failed, as recited in claim 73. Further, with respect to independent claims 82 and 83, there is no teaching by Tubel of a control module to send a command to the tool to perform a test of the tool, and a control module responsive to wireless signals from a portable user interface device to send coded signals to the tool for testing the tool. In light of the above, it is respectfully submitted that the hypothetical combination of Tubel and Bednarz cannot teach or suggest any of the subject matter of the independent claims.

Moreover, no motivation or suggestion existed to combine the teachings of Tubel and Bednarz. Fundamentally, the control system 22 depicted in Tubel is a downhole control system that is located a far distance away from the surface. Thus, it is not feasible for a portable user interface device to communicate wirelessly with the control system 22 of Tubel. This is one reason that it would not be desirable to use the remote control device of Bednarz in the system of Tubel.

Moreover, there simply did not exist any suggestion of any desirability to incorporate the remote control device of Bednarz into the system of Tubel, for reasons similar to those provided for Boyle and Bednarz.

In view of the foregoing, it is respectfully submitted that a *prima facie* case of obviousness has not been established with respect to any of the claimed invention.

Dependent claims are allowable for at least the same reasons as corresponding independent claims. Claim 72, which depends from independent claim 71, is further allowable because neither Tubel nor Bednarz teaches or suggests a control module to use the output of the current detector to determine if a component of the tool has failed. With respect to claim 84, which depends from claim 71, neither Tubel nor Bednarz teaches a control module to communicate an operational status of each of the components of a tool to a portable user interface device. With respect to claim 85, neither Tubel nor Bednarz teaches or suggests a portable user interface device that has a graphical user interface to display the operational status of each of the components in the tool.

Claims 86 and 87, which depend from claims 73 and 86, respectively, are similarly allowable over Tubel and Bednarz.

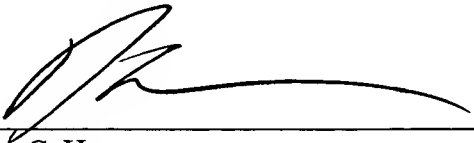
With respect to claim 75, which depends indirectly from claim 73, there is no teaching in Tubel or Bednarz of a portable user interface that is able to verify addresses of components in a tool.

With respect to claim 7, which depends from claim 82, there is no teaching in Tubel or Bednarz that the portable user interface device includes a display to show a result of the test. With respect to claim 62, which depends from claim 82, Tubel and Bednarz fails to teach or suggest a portable user interface device that has a graphical user interface having one or more control elements selectable to activate testing of a tool. Claim 63, which depends from claim 62, recites a portable user interface device that is able to send commands to sequentially test plural control units, a feature that is not taught or suggested by Tubel and Bednarz. Claim 64, which depends from claim 63, recites a graphical user interface to display acquired information pertaining to each of the control units, another feature not disclosed or suggested by either Tubel or Bednarz.

In view of the foregoing, allowance of all claims is respectfully requested. The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account No. 20-1504 (SHL.0187US).

Respectfully submitted,

Date: Nov. 24, 2004



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